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## SECTION VI

### FLEET TRAINING FEEDBACK AND ASSESSMENT PROGRAMS

#### 1. POLICY OBJECTIVES

a. The Chief of Naval Operations (CNO) has given a high priority to the need to continually assess and improve the effectiveness and efficiency of the Navy's training efforts in support of fleet readiness. OPNAVINST 1500.51B1 establishes policy and assigns responsibility for implementing the total force training strategy. This strategy focuses on major objectives intended to place appropriate emphasis on training and assigns responsibilities for implementation.

b. The total force training strategy focuses on seven major objectives and assigns responsibilities for implementation. These objectives are:

(1) Maintain an overall Navywide assessment of all levels of training and provide effective feedback systems for quality control of training.

(2) Validate and upgrade the training resource base.

(3) Conserve training resources by identifying and capitalizing on training efficiencies.

(4) Ensure the training community is capable of accommodating new and existing training requirements.

(5) Maintain a proper balance between shore-based and onboard training (OBT).

(6) Develop training policies which conform with standardized fleet maintenance and operation procedures.

(7) Integrate state-of-the-art simulation/stimulation techniques into training and operational activities and man/machine interface requirements into weapons systems acquisition to enhance war fighting effectiveness, efficiency, and self-reliance.

c. In addition to outlining the requirement for a training feedback and operational command to ensure the accomplishment of the objectives, DCNO will evaluate training assessment of Navy training. Results of this

effort are to be included in the semiannual training brief to the CNO Executive Board (CEB).

d. The Chief of Naval Education and Training (CNET) will assess its schoolhouse training and provide this information to DCNO for inclusion in the CEB. Additionally, CNET will assist fleet Commanders in Chief (CINCs) in developing and implementing an assessment and feedback system for graduates of formal schools. CNET's primary responsibility is to provide fleet CINCs with information about actions taken to correct deficiencies in provided training.

e. Primary responsibility for training assessment is assigned to the fleet CINCs. They are directed to assess all aspects of fleet training, as well as all graduates of formal schools. Fleet CINCs are also directed to establish formal feedback procedures to report training of deficiency information to CNET and to participate actively in the development and maintenance of training standards and requirements.

f. The total force training strategy prescribes how the various commands involved are to collect and disseminate the required assessment information. CNET and the fleet CINCs are partners in this training sphere, the fleet is to assess all graduates, and CNET is to use the information to correct schoolhouse deficiencies.

g. The NAWCTSD has maintains awareness of fleet training assessment programs to support the CNO objectives and can be contacted for further information on these through the cognizant PD.

h. An example of current Training Assessment Program set up to respond to CNO requirements is the Fleet Training Assessment Program (FLETAP):

(1) Objectives for the development of a training assessment system to enhance the quality control of all levels and Navy training were set by OPNAVINST 1500.51B2. It directed the fleet Commanders in Chief (FLTCINCs) to estab-

lish a program to assess all aspects of fleet training and all products of formal schools received by the fleet. Responsibility for training assessment is assigned by the Chief of Naval Operations (CNO) to the Chief of Naval Education and Training (CNET) and to the FLTCINCs.

**(2)** The CNET has specific responsibility for assessing schoolhouse training, for assisting FLTCINCs in developing and executing an assessment and feedback system for graduates of formal schools, and to assist Commander, Naval Reserve Force (COMNAVRESFOR), to develop a training feedback system. In response to the OPNAV requirement, the FLTCINCs established the Fleet Training Assessment Program (FLETAP). The FLETAP is governed jointly by CINCLANT/PAC and administered by CNET. The Fleet Training Commanders (COMTRAPAC/ COMTRALANT) were designated as the FLTCINC's agents for the execution of the FLETAP.

**(3)** Two elements of training assessment will be covered by the program: The identi-

fication and correction of existing training deficiencies (Phase I) and training quality reviews of formal schools (Phase II) to ensure that school graduates met fleet-provided information about training deficiencies affecting assigned forces to FLETAP. TYCOMs were also directed to support the execution of FLETAP by encouraging subordinates to report deficiencies assisting the training commands in staffing of recommended corrective actions, and routing reports and other correspondence that contained information about potential training deficiencies through the Training Command (TRACOM).

**(4)** The Naval Reserve is also being integrated into FLETAP. Readiness Commands (REDCOMs) will use the existing FLETAP(LANT) or FLETAP(PAC) organizations to identify potential training deficiencies. Selection of the appropriate FLETAP organization is based on the geographic location of the REDCOM.

## **SECTION VI-B**

### **SYSTEM CUSTODY AND INVENTORY RECORDS**

#### **1. CUSTODY AND INVENTORY RECORDS REQUIRED.**

Although requirements for custodians to maintain a formal log book were canceled, NAVTRASY-SCENINST 4440.10C requires that Sections 1 (Custody and Inventory Record) and II (Inventory Shortage Record of Accountable Items) be maintained for transfer and acceptance of custody of Cog 2"O" training equipment.

#### **2. RESPONSIBILITY FOR MAINTENANCE.**

##### **a. Training Agent.**

The training agent is responsible for the type of maintenance records to be kept by the reporting custodian. Training system custodians should refer to the policy guidance of their chain of command sponsor and requiring training agents to be sure their records are consistent with policy documents of those activities. The reporting custodian is responsible to the controlling custodian for ensuring accuracy and completeness of records maintained. Records are maintained under the supervision of the training system Officer in Charge or authorized representative of the Commanding Officer of the system reporting custodian's organization to provide a permanent detailed equipment service record. It is the system custodian's responsibility to see that the plant property records are consistent with the Custody and Inventory Records and Inventory Shortage Records.

##### **b. New Training System.**

For a new training system, the Custody and Inventory Record and the Inventory Shortage Records are completed by the prime contractor. The completed records are delivered to the site with the training system. A copy of the completed, signed, and dated Inventory Shortage of Accountable Items should also be delivered to the plant property and fiscal officer of the accountable activity at the station to which the system is delivered and to those other addresses specified on the DD 1423 contract requirements list. The records should be identified in the DOD Plant Property Record, DD Form 1342, as equipments composing and accountable for the training system.

##### **c. Custody/Inventory Records.**

The Custody and Inventory Records and, if applicable, the associated local 3M records which include the Daily Accountability Log, Daily Exercise Log, Training Device Exercise List, Student Accountability Record, and scheduled (preventive) maintenance record must be maintained and shipped with the training system when it is shipped to another activity. For annual inventory checks and to aid in identification, custodian personnel should refer to NAVTRASYSCENINST 4410.1J, Identification, Cataloging, and Marking of Cognizance Symbol 2"O" Training Equipment, 18 Apr 89.



## SECTION VI-C

### TEST AND EVALUATION (T&E)

#### 1. GENERAL

Test and Evaluation (T&E), like almost every facet of the training system acquisition process, is tailored project-by-project to best suit the uniqueness of project needs. From a generic viewpoint, however, the basic kinds of T&E which may occur throughout all phases of the training system's life cycle are Development, Test and Evaluation (DT&E) and Training Effectiveness Evaluation (TEE). Test and Evaluation requirements are generally peculiar to a specific program and must be responsive to program objective requirements, within the confines of DOD and CNO directives and instructions.

#### 2. DEVELOPMENT, TEST AND EVALUATION (DT&E)

Development, Test and Evaluations (DT&Es) are conducted to demonstrate that the engineering design and development process is complete, that the design risks have been minimized, and that the training system meets the specifications of the contract. Historically, training systems have been subjected to rigorous DT&Es throughout their life cycle, to identify engineering deficiencies and to ensure compliance with the technical requirements in the contract specifications. Upon successful completion of on-site acceptance tests, the system is turned over to the user and is inducted into the formal training program, with little attention to the operational suitability of the system and its potential capability for meeting stated training objectives. DT&Es are planned and conducted by the Engineering Department. (For more detailed information see Section III.)

#### 3. TRAINING EFFECTIVENESS EVALUATION (TEE)

a. TEE refers to the degree to which the use of a training system facilitates the achievement of training objectives. The TEE consists of three parts: Operational Suitability (OS) Test and Evaluation measures the degree to which a training system can be satisfactorily supported, maintained, and used in its intended training environment with its intended maintenance sup-

port personnel; Training Capabilities (TC) Test and Evaluation examines the potential training capability of the training system to achieve the established training objectives; and Student Performance Evaluations are conducted to determine the actual degree to which a training system leads to the achievement of learning objectives. The Student Performance Evaluation to determine effectiveness of a training system may be either objective/trainee/performance based, for specifiable training objectiveness in meeting specifiable training objectives. The TEE may be based on a combination of both methodological approaches, depending on the information feedback desired and the cost of attaining such information.

b. A TEE is performed, as directed or deemed necessary, to measure the degree to which the use of the system(s) can lead to, or has led to, the achievement of appropriate or representative learning objectives. A TEE is not automatically required in all cases; however, OPNAVINST 5000.50A requires a TEE plan for all systems that meet threshold criteria (the dollar thresholds will, unless otherwise directed by the CNO on a case-by-case basis, be those thresholds established in DODINST 7110.1-M, Part 2, DOD Budget Guidance Manual, 1 May 90 (\$10 million or 10 percent of a project, whichever is smaller, for research and development appropriations and for procurement appropriations, \$25 million for aviation and \$10 million for all others). Information and consultation on any planned TEE can be obtained or coordinated through the Engineering Department.

c. The Training Effectiveness Evaluation Agency (TEEA) will conduct the TEE. A Training Effectiveness Evaluation Plan (TEEP) will be developed by the Principal Development Activity (PDA) in accordance with enclosure (3) of OPNAVINST 5000.50A. The TEEP will be initially developed a minimum of one year prior to the scheduled start of the TEE. To develop a detailed TEE plan, information is required from several critical sources; e.g., the user (schoolhouse, squadron, training center), Fleet Project Team, sponsor, et al. Much of the information may come from the

Navy Training Plan (NTP) or even the post Ready For Training (RFT) situation.

The TEE will include as a minimum the following T&Es:

- (1) Training system design and support deficiencies that limit or preclude effective training;
- (2) Difficulties in establishing optimum or required learning conditions;
- (3) Student progress toward achievement of learning and/or training objectives;
- (4) Training system capability of meeting established criteria;
- (5) Student and instructor attitudes relating to the acceptance of the training system; and
- (6) Effect on student proficiency as determined using training objectives as criteria.

#### 4. THREE PARTS OF TRAINING EFFECTIVENESS EVALUATIONS.

The three parts of Training Effectiveness Evaluations (TEE) are as follows:

##### a. Operational Suitability (OS) and Training Capabilities (TC) Test and Evaluations.

(1) Results of these tests and evaluations are used to: determine if the training system satisfies all operational objectives stated/specified in the Training System Functional Description (TSFD), serve as a basis for engineering changes, validate new concepts in the operational setting, provide design data for new products and, in some cases, serve as the basis for production decisions. The T&Es are, in effect, an extension of on-site acceptance testing to identify suitability deficiencies and to assess the potential training capabilities of the system when used in its intended operational setting, in its intended training role. The TSFD (or the appropriate requirements document) serves as the baseline document for OS and TC tests and evaluations, as contrasted to the device

contract, which serves as the baseline document for all DT&E tests.

##### b. The OS and TC Tests and Evaluates Total Training Systems.

When a training system is developed, OS and TC tests not only the trainers, but also the entire training system such as manuals, man/machine interface, maintenance personnel, life-cycle support and interfacing equipment. A training system may fail the OS and TC tests, even though the trainer passes all DT&E tests.

**(a) Availability.** Operational Availability (OA) is the fraction or percentage of time that the training system is available for training.

**(b) Compatibility.** The capability of the training system to operate in its intended environment without adverse effects to or from other systems.

**(c) Human Factors.** The application of information about human capabilities and limitations to the design, use, and evaluation of training systems.

**(d) Interoperability.** The capability of the training system or transfer information (or services), as required, to or from other systems (or subsystems).

**(e) Logistics Supportability.** The degree to which the logistics (including test equipment, spares and repair parts, technical data, support facilities, and training) and manpower meet training system availability and usage requirements.

**(f) Maintainability.** A characteristic of training system design and installation that affects the ease or difficulty with which the system may be retained in, or restored, to a specific serviceable condition.

**(g) Reliability.** The duration or probability of failure-free performance of a training system under stated conditions.

**(h) Safety.** How well the training system and its environment is designed, manufactured, and maintained to eliminate hazards

to instructors, operators, students, and maintenance personnel.

**(i) Software Operation Validation and Verification.** The testing and analysis of the delivered software to assure that it meets all the requirements of simulation as set forth in the TSFD and is in accordance with all delivered software documentation.

**(j) Training.** How well the instructor, operator, and maintenance personnel have been trained to use, operate, and maintain the training system.

**(k) Transportability (if applicable).** The ability of the training system to be transported from place-to-place as specified in the TSFD.

**(l) Utilization.** The fraction or percentage of operational available hours that the training system is fully used for actual training.

#### c. Tests.

These tests are performed under actual realistic operating conditions, utilizing personnel of the type and qualifications of those expected to use and maintain the training system when deployed.

#### d. Learning Objectives.

The TC tests and evaluations assess all the training system features and their potential to achieve the required learning objectives under the actual environment (intended students). They also assess the Instructor/Operator Station (IOS) factors such as workload, performance monitoring and evaluation capabilities, and ease of training tasks/mission set up. In some cases, TC tests identify and assess additional design capabilities not addressed/insufficiently addressed by the established learning objectives. These tests will examine over, as well as under, design aspects of the training system.

#### e. Student Performance Evaluation.

Student performance evaluation in TEE is a measure of the effect of the use of a training system on the student's skill or knowledge. Measurement of the training effect depends heavily on the type of training effect issue. Performance

measures usually reduce to speed, accuracy, or completeness of process. These measures are compared against absolute or relative standards. Student performance measures as indicators of training effects are assessed in the context of an evaluation design. There are too many evaluation designs to list in this short space, but the more commonly recognized and executed are:

**(a)** Comparison of training system students versus control students common training objectives (2 groups);

**(b)** Pre-training versus post-training comparison of performance on training objectives (1 group).

#### f. Comparisons.

The comparisons in the two evaluation designs listed above may involve:

**(a)** Ratings of performance on the training system;

**(b)** Objective measures of speed, accuracy, or completeness of performance on the training system; and

**(c)** Ratings of performance in the operational setting (transfer of training).

### 5. PURPOSE

**a. T&E was established to support the training community through the following goals:**

**(1)** Provide the required training system at the most economical price and in accordance with good design practices.

**(2)** Help improve training products, but not act in a manner that would cause road-blocks, such as would be caused by an inspection/policing agency.

**(3)** Provide a continuity throughout the process acquisition cycle; the acquisition is a complex process that involves personnel, requirements, and technology changes, and problems with funding and restricted acquisition regulations. The TEE is a significant portion of the life cycle T&E program.



**b. The major goal for the TEEs is the same as the general goal for all aspects of training throughout the Navy training community; to**

**provide the Navy with the best training available within allocated resources.**